

ABSTRACT

5 Methods for the multiplexed detection of the binding of, or interaction between, one or
more ligands and target antigands are provided. Detection involves the release of identifying
tags as a consequence of target recognition. The methods include the use of electrophoretic tag
probes or e-tag probes, comprising a detection region and a mobility-defining region called the
mobility modifier, both linked to a target-binding moiety. In practicing the methods, target
10 antigands are contacted with a set of e-tag probes and the contacted antigands are treated
with a selected cleaving agent resulting in a mixture of e-tag reporters and uncleaved and/or
partially cleaved e-tag probes. The mixture is exposed to a capture agent effective to bind to
uncleaved or partially cleaved e-tag probes, followed by electrophoretic separation. In a
multiplexed assay, different released e-tag reporters may be separated and detected providing
for target identification.

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